

WHAT IS CLAIMED IS:

1. An anti-cancer composition comprising N,N-dimethylphytosphingosine as an active ingredient.

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2. The composition according to claim 1, further comprising at least one phytosphingosine derivatives selected from the group consisting of phytosphingosine, acetylated phytosphingosine and ethylated phytosphingosine.

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3. The composition according to claim 2, wherein the weight ratio of N,N-dimethylphytosphingosine to phytosphingosine derivatives is 1:1.

4. A kit for treating cancer comprising the composition of claim 1.

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5. The kit of claim 4, comprising the composition as an adjuvants of other anti-cancer drugs.

6. A sphingosine kinase inhibitor composition comprising N,N-dimethylphytosphingosine as an active ingredient.

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7. An apoptosis inducing composition comprising N,N-dimethylphytosphingosine as an active ingredient.

8. A protein kinase inhibitor composition comprising N,N-dimethylphyto
sphingosine as an active ingredient.

5 9. An anti-inflammatory composition comprising N,N-dimethylphytosphingosine
as an active ingredient.

10 10. A composition for treating a hyperplastic disease comprising N,N-
dimethylphytosphingosine as an active ingredient.

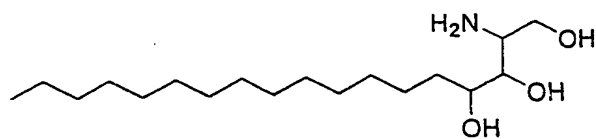
11. The composition according to claim 10, wherein the hyperplastic disease is
psoriasis.

12. An antibacterial composition comprising N,N-dimethylphytosphingosine as
15 an active ingredient.

13. A process for producing N,N-dimethylphytosphingosine comprising reacting
phytosphingosine of the formula 2 with the formaldehyde in a solvent in the presence of
reducing agent via the compound of the formula 3 as an intermediate:

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[Formula 2]



[Formula 3]

